

*B3*  
The hollow fibers **70** advantageously comprise a 160 cm length of matted fibers (each fiber advantageously about 8-10 cm in length) loosely rolled into a cylindrical shape, so that about a 0.05 inch space remains between the outer diameter of the fiber roll and the inner diameter of the oxygenator housing. The ends of the fibers proximate the entrance and exit manifolds advantageously are open and clean. A particularly advantageous matted fiber commercially available for use is the AKZO OXYPHAN<sup>TM</sup> fiber mat, a polypropylene hollow fiber mat including 16.8 fibers/cm, each having a wall thickness of about 50  $\mu\text{m}$  and about a 280  $\mu\text{m}$  inner diameter, available from Akzo Nobel, Germany.

Please replace the second paragraph on page 48 with the following text:

*B4*  
Turning now to Figure 6, an extracorporeal blood oxygenation circuit is shown including a pump assembly **500** operable to deliver blood withdrawn from a patient to an exemplary liquid-to-liquid oxygenation assembly **600**. The assembly **600**, portions of which are shown in greater detail in Figures 7A-E, advantageously includes an injector housing **610**, a sidewall assembly **620**, and a cap **630** joined so as to define an interior space (also referred to as a mixing chamber) **612** within which blood provided by the supply tube **640** mixes with oxygen-supersaturated fluid provided by the capillary assembly **650** to form oxygenated blood. The oxygenated blood exits the interior space **612** via outlet **614** for delivery via return tube **660** to a fluid delivery apparatus **510**. The injector housing **610**, sidewall assembly **620**, cap **630**, and other assembly components advantageously are disposable and are made of biocompatible materials, e.g., polycarbonate, polyethelyene and the like. The tubing advantageously comprises medical grade PVC tubing.

Please replace the first and the second paragraphs on page 49 with the following text:

*B5*  
passageway **644** extending through at least a portion of the housing **610** and including a fluid port (also referred to as a first inlet) **646**. Advantageously, blood enters the mixing chamber **612** through port **646** so as to create a vortical or cyclonic flow within the mixing chamber **612**, e.g., along a path substantially tangential to the chamber wall.

The capillary assembly **650** advantageously includes a single fused silica capillary having a 100  $\mu\text{m}$  inner diameter and a 350  $\mu\text{m}$  outer diameter, which comprises a continuous fluid pathway between a first end of the assembly **650** operatively coupled to the outlet of an oxygen-supersaturated fluid supply assembly **550** and a second end of the assembly **650** disposed to allow